

USEPA's Regulatory Framework for "E-Waste"

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FOCUS OF PRESENTATION

- **THE BASICS OF HOW USEPA
HAZARDOUS WASTE RULES DO &
DON'T APPLY TO “E-WASTE”**

USEPA's POLICY APPROACH

- **THE WASTE MANAGEMENT HEIRARCHY**
 1. REUSE
 2. RECYCLING
 3. DISPOSAL
- **EPA's REGULATORY AND VOLUNTARY PROGRAMS EMPHASIZE THIS HEIRARCHY**
- **ALTHOUGH NOT PREFERRED, "E-WASTE" CAN BE SAFELY DISPOSED IN NON-
HAZARDOUS WASTE LANDFILLS**

EPA RULES

- **GENERALLY, MOST “E-WASTE” IN THE U.S. IS EITHER:**
 - NON-HAZARDOUS WASTE
 - NON-WASTE
- **SEVERAL HAZARDOUS WASTE EXCLUSIONS & EXEMPTIONS APPLY**
 - TO ENCOURAGE REUSE & RECYCLING

EXCLUSIONS & EXEMPTIONS

- **RCRA: Resource Conservation and Recovery Act**
 - **FEDERAL LAW re HAZARDOUS WASTE**
- **Under RCRA, a material must first be a waste in order to have the potential to be a hazardous waste**
- **EPA regulations under RCRA have many exclusions and exemptions**
 - **EXCLUSION: It is not a waste**
 - **EXEMPTION: It is a waste, but not a hazardous waste**

INCENTIVES for REUSE & RECYCLING UNDER U.S. LAWS & REGULATIONS

- **EQUIPMENT FOR POTENTIAL REUSE IS NOT WASTE – obsolete electronics are often capable of being reused**
- **WASTE CAN BE MADE NON-WASTE BY PROCESSING – i.e., raw materials/commodities can be produced**

HAZARDOUS WASTE EXEMPTIONS

■ NON-HAZARDOUS WASTES:

- HOUSEHOLD WASTES including any electronics from households
- SCRAP METAL FOR RECYCLING
- WHOLE CIRCUIT BOARDS FOR RECYCLING
- PRECIOUS METALS FOR RECYCLING

HAZARDOUS WASTE EXCLUSIONS

- **NON-WASTES: (Products or commodities)**
 - MATERIALS OR EQUIPMENT FOR REUSE
 - PROCESSED SCRAP METAL FOR RECYCLING
 - SHREDDED CIRCUIT BOARDS FOR RECYCLING
 - Must be packaged to prevent release
 - Free of NiCd and Li batteries and mercury devices
 - PROCESSED CRT GLASS FOR RECYCLING
 - INTACT CRTs FOR RECYCLING
 - PARTIALLY PROCESSED CRTs FOR RECYCLING
 - CONDITIONS APPLY

CRT RULE

- FINAL RULE ISSUED JULY 2006
- INTENDED TO STREAMLINE REQUIREMENTS AND ENCOURAGE RECYCLING
- THE RULE IS A CONDITIONAL EXCLUSION
- IF RULE IS COMPLIED WITH, CRTs ARE NON-WASTE IF REUSED OR RECYCLED
- PACKAGING & LABELING REQUIREMENTS FOR STORAGE & TRANSPORT
- EXPORT REQUIREMENTS WENT INTO EFFECT 1/29/07

CRT RULE EXPORT REQUIREMENTS

■ CRTs EXPORTED FOR RECYCLING

- PROCESSED GLASS: NOT REGULATED
IF SENT TO CRT GLASS MANUFACTURER
OR LEAD SMELTER**
- NOTIFICATION & CONSENT PROCESS
FOR WHOLE CRTs & UNPROCESSED CRT
GLASS**

CRT RULE EXPORT REQUIREMENTS

■ INTACT CRTs EXPORTED FOR REUSE

- EXPORTER MUST SEND A ONE-TIME NOTIFICATION TO EPA OR THE STATE**
- EXPORTER MUST KEEP BUSINESS RECORDS FOR 3 YEARS DEMONSTRATING EXPORT FOR LEGITIMATE REUSE/REFURBISHMENT**

HAZARDOUS WASTES

- IF ALL FOUR ELEMENTS APPLY:
 - GENERATED BY NON-HOUSEHOLDS
 - GENERATED AT MORE THAN 220 lbs/mo
 - HAVE A HAZ WASTE “CHARACTERISTIC,” e.g., FAIL TCLP. EXAMPLES:
 - CRTs
 - SOME LAPTOPS, CELL PHONES, ETC.
 - *SENT FOR DISPOSAL*

SUMMARY

COLLECTION, REUSE & RECYCLING

- **PERSONS OR BUSINESSES THAT SEND USED ELECTRONIC EQUIPMENT TO RECYCLERS:**
 1. **ARE NOT WASTE GENERATORS**
 - Unless they require destruction
 2. **GENERALLY AVOID RCRA LIABILITY**
- **MUCH OF WHAT A RECYCLER COLLECTS IS NOT WASTE**
- **RECYCLERS' OUTPUT INCLUDES:**
 - Used and unused products
 - Recyclable commodities
 - Both non-wastes & non-hazardous wastes
 - Wastes requiring special handling or disposal

WASTES REQUIRING SPECIAL HANDLING

- **UNIVERSAL WASTES ARE HAZARDOUS WASTES WITH SPECIAL CONTROLS TO FACILITATE TREATMENT/RECYCLING**
 - **Certain batteries**
 - **NiCd, Li, Pb acid**
 - **Lamps and other mercury devices**

STATE HAZARDOUS WASTE RULES

- **STATE RULES MAY BE MORE
STRINGENT THAN USEPA**
- **SOME STATES CLASSIFY E-WASTE AS
UNIVERSAL OR HAZARDOUS WASTE**

USEPA GUIDELINES

- ISSUED IN 2004
- VOLUNTARY GUIDELINES FOR MANAGEMENT OF USED & SCRAP ELECTRONICS
- BASED ON OECD & OTHER GUIDELINES
- EMPHASIZES DUE DILIGENCE REGARDING MARKETS
- ADDRESSES EXPORT

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